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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,259	10/20/2003	Masami Endo	12732-169001	4579

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EXAMINER

HOLTON, STEVEN E

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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05/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/688,259

Applicant(s)

ENDO ET AL.

Examiner

Steven E. Holton

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5, 6 and 16 is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 2/8/2007. Claims 1-3, 5-7, and 12-16 are currently pending in the application. An action follows below:

Claim Objections

2. Claims 1 and 2 are objected to because of the following informalities:

Regarding claim 1, the phrase "setting the second signal to the first state after a first video data is read **from other of the first memory** and the second memory (emphasis added)". The Examiner feels that the phrase should be "from one of the first memory..." or "from the other of the first memory...".

Regarding claim 2, the next to last phrase stating "wherein start of writing of the writing circuit..." should be "wherein **the** start of writing of the writing circuit...".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Aoki et al. (USPN: 6225990), hereinafter Aoki.

Regarding claim 7, Aoki discloses a method of operating a display device. The display device includes “a first memory (Fig. 1b, element 11), a second memory (Fig. 1b, element 12) a selector circuit (Fig. 1a, element 7), wherein the selector circuit selects one of the first memory and the second memory as a memory for writing and selectes the other of the first memory and the second memory as a memory for reading and writes video data to the first memory and the second memory alternately (col. 8, lines 38-55)”. Aoki further discloses a method of operation with the steps, “changing selection of the selector circuit after writing a second video data to the memory for writing and reading a first video data from the memory for reading (col. 8, lines 51-55; the memories are changed every horizontal scanning period which is how long it takes for the memories to be read and written to for each cycle); and starting to write a third video data to the memory for writing based on a pulse having a constant period received after changing selection of the selector circuit (Fig. 2, signal CLw; col. 8, line 58 – col. 9, line 39, the clock signal CLw is used to indicate when writing of data takes

Art Unit: 2629

place, therefore, the clock pulse CLw immediately after the horizontal pulse of Cw begins the writing of data to the selected memory), wherein light or non-light of the lighting element is controlled by the video data (the pixels of the liquid crystal display are operated to be lit or un-lit based on the image data)."

Allowable Subject Matter

4. Claims 1-3, 5, 6, and 16 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a method of driving memory devices for operation of a display device. Independent claims 2 and 16 identify the uniquely distinct features "a writing circuit which writes the video data to a memory fro writing and enters a wait state after writing is finished" and "wherein start of writing of the writing circuit is controlled based on the pulse after revision of a selection by the selector circuit". The closest prior art, Aoki and Koudmani (USPN: 5572691) disclose devices for controlling operation of reading and writing from two memories but lack a 'wait period' for the writing device when writing is finished, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Independent claim 1 identifies the uniquely distinct features "starting to write a second video data to one of the first memory and the second memory when the first signal and the second signal are in a first state", "setting the first signal and the second signal to a second state after the second video data is written to one of the first memory

Art Unit: 2629

and the second memory", and "setting the second signal to the first state after a first video data is read from other of the first memory and the second memory". The closest prior art, Aoki and Koudmani (USPN: 5572691) disclose devices for controlling operation of reading and writing from two memories but lack a signals applied to the reading and writing control circuits that provide the specific state switching described in the claims, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2629

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
April 26, 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
